

claim 1 now is required to produce the library of claim 51, and claim 52, to use the library of claim 51.

The office action cites Liu against the method of claim 1. Liu nowhere discloses a double stranded identifier linked to the molecule part, hence Liu does not disclose covalent linkage of two strands according to amended claim 51. Since claim 1 is now required to produce the library of claim 51, it must also be so limited. Additionally, claim 52 (group IV) has been amended so the library of clause (i) is a library according to claim 51. Hence it is directed to a method of suing the library of claim 51.

3. In response to the requirement of election of a species of **template**, applicants elect DNA with traverse.

All group III claims, and all new claims, read on the elected species.

The group III claims, as amended, do not reference the process of claim 1 and therefore do not refer, directly or indirectly, to a template. Hence, it is believed that the requirement is mooted by the amendment and should be withdrawn (unless the group level restriction is itself withdrawn).

For the same reason, the group III claims may all be said to be generic to the choice of template, and indeed the examiner previously conceded that claims 51 and 66-68 were generic as examined for restriction purposes.

The restriction is thus also traversed on the ground that generic claims are allowable.

4. In response to the requirement of election of a species of "molecule linked to building block", we respectfully note that this requirement is unclear.

The examiner cites claims 1(b) and 51. Claim 1(b) recites "providing a plurality of different building blocks each building block comprising an anti codon, a functional entity and a linker connections the anti-codon and the functional entity". Each functional entity comprises at least one reactive group. The claim also refers to "nascent

templated molecules" and to "templated molecules", and, by implication the templated molecule is formed by connection (through the reactive groups of the functional entities) of template-hybridized building blocks. Thus, the "molecule" of claim 1 is not linked to the building block, but rather the building blocks are linked to from the molecule.

Claim 51 as examined for restriction purposes is directed to a library of complexes, and each complex comprises a "molecule part". Since examined claim 51 recited that the library was obtainable by the method of claim 1, the implication was that this "molecule part" corresponded to the "templated molecule" of claim 1. Claims 66 and 67 specified various chemical classes to which this "molecule" could belong.

Amended claim 51 is not dependent on claim 1, and claim 1 is not one of the elected group III claims. Those claims refer to a "molecule part", but not to a "building block".

It is therefore questionable whether the species restriction as phrased is applicable after the present amendment. However, to advance prosecution, we construe it as a requirement to elect the "molecule part" of claim 51.

Accordingly, applicants elect with traverse that at least one "molecule part" consists essentially of one or more heterocycles (see P24, L29) and one or more amino acids.

If further specificity is required, we elect with traverse that at least one of these heterocycles is the heterocycle that is part of the "Feuston 3" molecule depicted in Fig. 30, structure 1.

Please note that this is consistent with the "building block" election that we made in the May 5, 2010 response.

If further specificity is required, we elect that at least one "molecule part" is "Feuston 5" as that term is used in the application (more particularly, the "molecule part" of the structure depicted in Figure 30, structure 2). This molecule is the product (as discussed below) of three building

blocks: a residue of "Feuston 3" (as discussed below), a Gly, and an Asp.

This election was previously made in our May 5, 2010 response section 4. The examiner confirmed in a telephone interview of January 27 that such an election is responsive, and indeed that was implied by the last paragraph of the action.

The examiner has previously pointed out to us that there are differences between Feuston 5 as depicted in Figure 30, structure 2 and Feuston 5 as shown in Feuston et al. Our "Feuston 3" is similar but not identical to Feuston's Feuston 3, and our "Feuston 5" is similar but not identical to Feuston's Feuston 5. Reference must be made to Figure 30 and Example 5.

Feuston 3 and 5, in both the article and our Fig. 30, all comprise a "core structure" (as we will call it) that consists of two fused heterocyclic rings, one saturated (piperidine) and the other aromatic (pyridine).

In our Feuston 3 (Fig. 30, structure 1), an allylglycine is attached (via the carbonyl carbon) to the heterocyclic nitrogen of the saturated ring, and another moiety is attached to the ring carbon adjacent to the other heterocyclic nitrogen. This moiety is $-(CH_2)_3-CO-O-CH_2-CH_3$.

In Feuston's Feuston 3, that allylglycine is missing, and there is a different large moiety attached to the ring carbon adjacent to the other heterocyclic nitrogen. This moiety is $-(CH_2)_2-Ph-CONH-CH_2-CZCOOH$, wherein Z is NSO_2Ph .

In our Feuston 5 (Fig. 30, structure 2), the core structure as previously defined is derivatized with a large moiety attached to the ring carbon adjacent to the heterocyclic nitrogen of the aromatic ring. This moiety is $-(CH_2)_3-CO-NH-CH_2-CO-NH \underline{(-CH_2-COOH)-CO-NH-Q}$, wherein Q stands in for the L-shaped sign that denotes a linker/anti-codon combination.

Note that we have put in spaces to show that this can be broken down as being a linker + Gly residue + Asp residue + NH + linker/oligo (the oligo being the anti-codon).

Also, we have boldfaced the portion of our Feuston 5 that, besides the core structure, is derived from our Feuston 3; the combination of the core structure with this $-(CH_2)_3CO-$ may thus be termed the "Feuston 3 residue".

In Feuston's Feuston 5, the large moiety is instead $-(CH_2)_3-CO-NH-CH_2-CO-NH-(CH_2)_2-COOH$.

Feuston's Feuston 5 thus differs (compare the underlined segments) from our Feuston 5 by more than merely the linkage to oligo.

Thus, we define our elected Feuston 5 "molecule part" as being the left portion of Fig. 30 structure 2, omitting the $-NHQ$ part on the right, wherein Q is the L-shaped sign. It thus consists of the "Feuston 3" residue, (interpreted as core structure + $-(CH_2)_3-CO$ and not as the entirety of Fig. 30, structure 1), a Gly residue, and an Asp residue.

The $-NHQ$ part is of course the oligo and the moiety linking to the oligo to the "molecule part".

In the telephone interview of January 27, the examiner indicated that election of "Feuston 5" was permissible and that it would probably satisfy the concerns alluded to in the last paragraph of the restriction if applicants made it clear that their Feuston 5 was not identical to Feuston's.

It should be appreciated that since a combinatorial library is contemplated, see P1, L12-18, the claimed library will exhibit diverse different "molecule parts". In this regard, see claim 70; P2, L26-30; P29, L17; Fig. 3.

It is plainly inequitable to require applicant to enumerate all of the different "molecule parts" of a single library or to limit applicant to a "library" in which the only displayed "molecule part" is Feuston 5.

To the extent that the examiner requires election of specific molecules, we traverse. We also traverse on the

ground that generic claims are allowable.

The examiner conceded that group III claims 51 and 66-81 were generic.

5. In response to the requirement of election of a species of chemical connection, applicants elect amide with traverse.

The group III claims, as amended, do not reference the process of claim 1 and therefore do not refer, directly or indirectly, to a chemical connection. Hence, the requirement is traversed as moot, and should be withdrawn.

The examiner previously conceded that claim 51 was generic. However, based on the reference to 1(d), the "chemical connection" of relevance is the one between the template and the building block. Since the amended group III claims do not reference the template, they all must be considered generic to the choice of chemical connection.

The restriction is also traversed on the ground that generic claims are allowable.

6. In response to the requirement to elect a species of predetermined activity, we believe that this requirement only applied if applicant elected invention group IV, which encompasses the referenced claims. (The reference on page 6 to invention group II is believed to be erroneous, and in any event, applicant elected III.)

That said, should group IV be rejoined, we elect affinity with traverse, as we did in the October 1, 2008 election. We believe that all group IV claims read on the elected species.

7. In response to the requirement to elect a species of **enrichment step**, we believe that this requirement applied only if applicant elected invention group IV, which encompasses the referenced claims 52 and 61. (Again there is a harmless reference to group II on page 6.)

That said, should group IV be rejoined, we elect immobilization with traverse, as we did in the October 1, 2008 election.

8. The new claims are generic to or otherwise read upon the elected species.

9. We hope that in the action on the merits, the examiner will suggest how to amend the captions of Figures 30 and 31, and the related text in the specification on pages 88-90, to clarify the record.

We suggest that our Feuston 3 and 5 be renamed Feuston 3' and 5', respectively, and the text amended to indicate they are similar to Feuston 3 and 5 as disclosed in the cited Feuston article.

Respectfully submitted,

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